

# Claims as enclosed to IPER

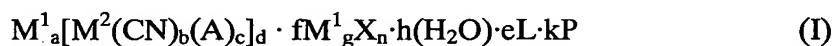
BASF Aktiengesellschaft

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## We claim:

1. A process for the preparation of at least one alkoxylate comprising the bringing into contact of an alkylene oxide mixture at least comprising ethylene oxide with at least one starter compound in the presence of at least one double-metal cyanide compound of the formula I:



in which

- $M^1$  is at least one metal ion chosen from the group consisting of  $Zn^{2+}$ ,  $Fe^{2+}$ ,  $Fe^{3+}$ ,  $Co^{3+}$ ,  $Ni^{2+}$ ,  $Mn^{2+}$ ,  $Co^{2+}$ ,  $Sn^{2+}$ ,  $Pb^{2+}$ ,  $Mo^{4+}$ ,  $Mo^{6+}$ ,  $Al^{3+}$ ,  $V^{4+}$ ,  $V^{5+}$ ,  $Sr^{2+}$ ,  $W^{4+}$ ,  $W^{6+}$ ,  $Cr^{2+}$ ,  $Cr^{3+}$ ,  $Cd^{2+}$ ,  $Hg^{2+}$ ,  $Pd^{2+}$ ,  $Pt^{2+}$ ,  $V^{2+}$ ,  $Mg^{2+}$ ,  $Ca^{2+}$ ,  $Ba^{2+}$ ,  $Cu^{2+}$ ,  $La^{3+}$ ,  $Ce^{3+}$ ,  $Ce^{4+}$ ,  $Eu^{3+}$ ,  $Ti^{3+}$ ,  $Ti^{4+}$ ,  $Ag^+$ ,  $Rh^{2+}$ ,  $Rh^{3+}$ ,  $Ru^{2+}$ ,  $Ru^{3+}$ ,
- $M^2$  is at least one metal ion chosen from the group consisting of  $Fe^{2+}$ ,  $Fe^{3+}$ ,  $Co^{2+}$ ,  $Co^{3+}$ ,  $Mn^{2+}$ ,  $Mn^{3+}$ ,  $V^{4+}$ ,  $V^{5+}$ ,  $Cr^{2+}$ ,  $Cr^{3+}$ ,  $Rh^{3+}$ ,  $Ru^{2+}$ ,  $Ir^{3+}$ ,
- A and X, independently of one another, are an anion chosen from the group consisting of halide, hydroxide, sulfate, carbonate, cyanide, thiocyanate, isocyanate, cyanate, carboxylate, oxalate, nitrate, nitrosyl, hydrogensulfate, phosphate, dihydrogenphosphate, hydrogenphosphate or hydrogencarbonate,
- L is a water-miscible ligand chosen from the group consisting of alcohols, aldehydes, ketones, ethers, polyethers, esters, polyesters, polycarbonate, ureas, amides, primary, secondary and tertiary amines, ligands with pyridine nitrogen, nitriles, sulfides, phosphides, phosphites, phosphines, phosphonates and phosphates,
- k is a fraction or integer greater than or equal to zero, and

- P is an organic additive,
- a, b, c, d, g and n are chosen such that the electroneutrality of the compound (I) is ensured, where c may be 0,
- e is the number of ligand molecules, a fraction or integer greater than 0, or 0,
- f and h, independently of one another, are a fraction or integer greater than 0, or 0,

wherein, during the induction phase, the sum of inert gas partial pressure and ethylene oxide partial pressure is 1.5 bar to 6.0 bar and the starter compound is a Guerbet alcohol

2. A process as claimed in claim 1, wherein the total pressure does not exceed 11 bar over the course of the reaction.

3. A process as claimed in claim 1 or 2, wherein at least one of the following properties is satisfied:

(1)  $M^1$  is chosen from the group  $Zn^{2+}$ ,  $Fe^{2+}$ ,  $Fe^{3+}$ ,  $Co^{3+}$ ,  $Ni^{2+}$ ,  $Mn^{2+}$ ,  $Co^{2+}$ ;

(2)  $M^2$  is chosen from the group  $Fe^{2+}$ ,  $Fe^{3+}$ ,  $Co^{3+}$ .

4. A process as claimed in claims 1 to 3, wherein  $M^1$  is  $Zn^{2+}$  and  $M^2$  is  $Co^{3+}$ .

5. A process as claimed in claims 1 to 4, wherein the double-metal cyanide compound used as catalyst is crystalline.

6. A process as claimed in claims 1 to 5, wherein the alkylene oxide mixture has an ethylene oxide fraction of more than 99%.

7. An alkoxylate obtainable by a process according to any of the claims 1 to 6.

8. The use of an alkoxylate according to claim 7 as emulsifier, foam regulator or as wetting agent for hard surfaces.